- printing a filament onto a first surface of the fabric to form the sample area, wherein the filament comprises an inert polymeric composition;
- cooling the inert polymeric composition to form an inert polymeric coating in the fabric such that the sample 5 area is completely surrounded by the inert polymeric coating.
- 2. The method of claim 1, wherein the filament is printed at an extrusion temperature, and wherein the inert polymeric coating comprises a polymer having a glass transition temperature that is less than the extrusion temperature.
- 3. The method of claim 2, wherein the extrusion temperature is about  $100^{\circ}$  C. to about  $200^{\circ}$  C.
- **4**. The method of claim **2**, wherein the extrusion temperature is about  $125^{\circ}$  C. to about  $150^{\circ}$  C.
- 5. The method of claim 2, wherein the glass transition temperature of the polymer is about  $50^{\circ}$  C. and about  $100^{\circ}$  C.
- **6.** The method of claim **2**, wherein the polymer has a melting temperature that is greater than the extrusion temperature.
- 7. The method of claim 1, wherein the polymer comprises a polylactic acid.
- 8. The method of claim 1, wherein the fabric defines a first surface and a second opposite surface, and wherein the filament is printed onto both the first surface and the second surface
- **9**. The method of claim **1**, wherein the inert polymeric composition saturates the fabric around the sample area.

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- 10. The method of claim 1, wherein the fabric comprises a woven fabric.
- 11. The method of claim 10, wherein the fabric comprises cotton fibers, nylon fibers, polyester fibers, silk fibers, or mixtures thereof.
- 12. The method of claim 1, wherein cooling the inert polymeric composition is achieved a cooling temperature that is less than about  $100^{\circ}$  C.
  - 13. The method of claim 1, further comprising: applying a blood sample to the sample area, wherein the blood sample saturates the fabric in the sample area but is prevented from migrating out of the sample area by
- 14. The method of claim 1, further comprising: preheating the fabric to a temperature within 20% of the extrusion temperature.

the inert polymeric coating.

- **15**. The method of claim 1, further comprising: heating the fabric during printing to a temperature within 20% of the extrusion temperature.
- 16. The method of claim 1, further comprising: following printing, heating the fabric to a temperature sufficient to cause the polymer to soften and flow throughout the thickness of the fabric.
- 17. The method of claim 1, wherein the polymer has a 25 melting temperature that is less than the extrusion temperature
  - **18**. The method of claim **17**, wherein the polymer comprises a homopolymer of 2-oxepanone.

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